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| 25315 7590 08/16/2007 BLACK LOWE & GRAHAM, PLLC 701 FIFTH AVENUE SUITE 4800 SEATTLE, WA 98104 | | | EXAMINER TRUONG, LECHI | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/627,203

Applicant(s)

MANZANO, MICHAEL R.

Examiner

LeChi Truong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.138(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. Claims 1-14 are presented for the examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scheneiderman (US 2002/0156932 A1) in view of Saulpaugh et al (US 7,016,966 B1).

As to claim 1, Sheneiderman teaches the invention substantially as claimed including: a mobile agent object (mobile agent, para [0023], ln 1-3/ para [0024], ln 8-10), a mobile to dynamically extend its capabilities (para [0023], ln 1-5), a mobile agent runtime environment (an execution [runtime] environment for the agents, in addition to sub-components for handling real-time collaboration between the mobile agent, para [0024], ln 10-13/ a number of servers interconnect ... launching or migration of agents onto other specified servers... both servers proving in which autonomous mobile agents may be independently executed, para[0101], ln 1-6 and 7-10), a host computing environment (one host, para[0024], 1-4/ para[0025], ln 4-6/computing host in the heterogeneous computing environment, right col 15, ln 14-16),

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executing a mobile agent in mobile-agent runtime environment in a host computing environment(para[0103], ln 12-15/ para[0107], ln 1-3/para[0122], ln 1-4).

Schneiderman does not explicitly teach configuring the mobile agent to install a service object to be executable. However, Saulpaugh teaches configuring the mobile to install a service object to be executable (The method gate may be generated on the client, col 29, ln 10-14/ when client use a method gate to remotely invoke a service method, a reference to the method results may be returned from the service method gate instead of the actual results. From this reference, a results gate may be generated to access the actual result, col 29, ln 55-60/ Results gates may be provided to clients in the distributed computing environment and used by the clients to access results generated by services on behalf of client, col 30, ln 27-31/ col 7, ln 47-55/ col 8, ln 1-5/ ln 36-43/ col 15, ln 20-40).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Schneiderman to incorporate the feature of configuring the mobile agent to install a service object to be executable because this avoids the complex configuration problems existing in conventional networks for communication and sharing resources.

3. Claims 2-11, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneiderman (US 2002/0156932 A1) in view of Yokoayama et al (US 2001/0029526 A1).

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As to claim 2, Scheneiderman teaches a first host computing environment, a second host computing environment having a mobile-agent runtime environment (both servers providing an environment in which autonomous mobile agents may be independently executed, para [0101], ln 3-10), accessing, with a first host computing environment, a second host computing environment having a mobile-agent runtime environment (para [0101], ln 3-10/ para [0122], ln 12-22), a first mobile-agent object operable (the mobile agents, para[0024], ln 6-13/para[0107], ln 1-3), operable to navigate to the second host computing environment(para[0101], ln 5-10/ 0103, ln 10-15/ para[0122], ln 1-3).

Scheneiderman does not explicitly teach generating in the first host a first mobile agent object; install a service object executable in the mobile agent runtime environment. However, Yokoayama teaches generating in the first host a first mobile agent object (the mobile agent 210 is generated, para [0045], ln 12/ Fig. 3 shows the detailed features of the mobile agent distribution program 106 in the server 100, para [0046], ln 1-3), install a service object executable in the mobile agent runtime environment (the service program is formed, para [0055], ln 1-4/ the service program contained in the mobile agent, para [0058], ln 3-4/ The traveling list is formed from identified for the traveling destination home terminal and flag data indicating which of the service programs contains in the mobile agent 210 are to be executed... indicates that service A, service C and service D are executed at the home terminal a, para[0058], ln 6-12/ a service to be distributed, para[01050, ln 1-2/ sending from said server to said node a mobile agent containing said traveling data and distribution data formed a program to be executed[a service] at said node/ and data to be used by said node, right col 8, ln 29-33/ the sending of the mobile agents 210 is performed by the mobile agent distribution program 106, col 2, ln 1-5).

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It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Scheneiderman to incorporate the features of generating in the first host a first mobile agent object, install a service object executable in the mobile agent runtime environment because this allows a program can be executed while moving between computers for fault avoidance and a fault occurs at an agent destination.

As to **claim 3**, Schneiderman teaches the mobile agent runtime environment (para [0024], ln 10-13 / para [0101], ln 1-6 and 7-10) and Yokoayama teaches the first mobile agent object is further operable to discover available service associated with the terminal (para [0046], ln 19-24/para [0058], ln 1-12).

As to **claim 4**, Schneiderman teaches the first host computing environment a second mobile agent object operable to navigate to the second host computing environment (para [0101], ln 5-10/ 0103, ln 10-15/ para [0122], ln 1-3) and Yokoayama teaches generating in the host a second mobile agent object (para [0045], ln 12), information associated with the available service (the traveling list 212 contains information about the service programs to be run at each home terminal, para [0045], ln 19-22), providing to the first host computing environment information associated with the available services(para[0045], ln 2-4 and ln 12-21/para[0046], ln 1-7/ right col 8, ln 28-34/ fig. 2).

As to **claim 5**, Yokoayama teaches the first mobile agent object includes the service object (para [0058], ln 1-5).

As to **claim 6**, Yokoayama teaches the first mobile agent object includes at least one service module operable to realize a function of the service object (para [0045], ln 19-24/ para [0049], ln 1-5/ para [0046], ln 1-7).

As to claim 7, it is an apparatus claim of claim 2; therefore, it is rejected for the same reason as claim 2 above. In addition, Yokoayama teaches the data structure to navigate (a server apparatus is equipped with method for distributing mobile agents where a traveling list [data structure] is added to the agent program when an agent is distributed, para [0009], ln 2-7), a first instruction / a second instruction (instruction for performing sending and loading, right col 8, ln 29-37/ the sending of the mobile agents 210 is performed by the mobile agent distribution program 106, col 2, ln 1-4).

As to claim 8, it is an apparatus claim of claim 6; therefore, it is rejected for the same reason as claim 6 above.

As to claim 9, Yokoayama teaches the installation of at least one service module in the mobile agent runtime environment (right col 8, ln 29-37).

As to claim 10, it is an apparatus claim of claim 5; therefore, it is rejected for the same reason as claim 5 above.

As to claim 11, Yokoayama teaches the data structure further comprises a runtime-data set associated with the service object (para [0058], ln 6-14).

As to claim 13, it is an apparatus claim of claim 2; therefore, it is rejected for the same reason as claim 2 above.

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scheneiderman (US 2002/0156932 A1) in view of Yokoayama et al (US 2001/0029526 A1) as applied to claim 1 above, and further in view of Wang (US 7,092,986 B2).

As to claim 12, Scheneiderman and Yokoayama do not teach the data structure comprises the instruction set that executed enables the use of an API associated with the second host computing environment. However, Wang teaches the data structure comprises the instruction set that executed enables the use of an API associated with the second host computing environment (a structure of the transparent mobile Ipv6 agent according to the present invention is illustrated. As show, a monitoring system 51 and application program 52 has standard functions and standard data structure [data structure] for internal processing a, and has different interfaces [set of interfaces] designed for different operating system. The internal calling the interface [API] of the application system 52, col 3, ln 40-45 and the established application system interface following related interfaces... network access layer API [data structure]: It is responsible for calling an API related service across different network access devices, col 4, ln 4-14).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Scheneiderman, Yokoayama and Wang's systems because the Wang's the instruction set that executed enables the use of an API associated with the second host computing environment would improve the teaching of Scheneiderman, Yokoayama's systems by allowing a transparent mobile agent which is adapted to various operating systems and network connection devices thus resulting in quick information communication over the Internet.

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5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scheneiderman (US 2002/0156932 A1) in view of Yokoayama et al (US 2001/0029526 A1), as applied to claim 2 above, and further in view of Saulpaugh et al (US 7,016966 B1).

As to claim 14, Scheneiderman and Yokoayama do not teach accessing, on the at least one first computer, the instructions; and transferring the instructions from the at least one first computer to the at least one second computer through the communication medium. However, Saulpaugh teaches accessing, on the at least one first computer, the instructions; and transferring the instructions from the at least one first computer to the at least one second computer through the communication medium (col 29, ln 10-14/ ln 55-60/col 30, ln 27-31/ col 7, ln 47-55/ col 8, ln 1-5/ ln 36-43/ col 15, ln 20-40).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Scheneiderman and Yokoayama to incorporate the feature of accessing, on the at least one first computer, the instructions; and transferring the instructions from the at least one first computer to the at least one second computer through the communication medium because this allows avoids the complex configuration problems existing in conventional networks for communication and sharing resources.

Response to the argument

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6. Applicant amendment filed on 05/08/2007 has been considered but they are not persuasive:

Applicant argued in substance that:

(1) " There is simply no teaching of suggestion in Yokoyama of configuring a mobile agent object to install a service object executable in the mobile-agent runtime environment ".

(2) " Schneideman, Yokoyama and Wang, taken each alone or in combination, fail to teach or suggest the limitation of claim 7".

7. Examiner respectfully disagreed with Applicant's remarks:

As to the point (1), the limitation of configuring a mobile agent object to install a service object executable in the mobile-agent runtime environment was not in claims 2 and 7.

As to the point (2), Yokoyama teaches a server apparatus is equipped with method for distributing mobile agents where a traveling list [data structure] is added to the agent program when an agent is distributed (para [0009], ln 2-7), a first instruction / a second instruction (instruction for performing sending and loading, right col 8, ln 29-37/ the sending of the mobile agents 210 is performed by the mobile agent distribution program 106, col 2, ln 1-4).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (571) 272 3767. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomson, William can be reached on (571) 272 3718. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

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LeChi Truong

July 17, 2007


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